TOMATO SEED

AS GROWN AND HARVESTED BY

HAVEN SEED COMPANY

Growers of the Best—Since 1875

SANTA ANA, CALIFORNIA

WITH the thought in mind of giving to our friends an interesting and short account of our work in seed production, we have issued this folder, and trust that it will be of value in pointing out some of the very essential elements of quality Tomato Seed.

Examining the Quality and Color of the Interior Structure

Best Fruit from Best Individual Plant is Taken

In the selection of planting stock of tomatoes the definite characteristics of a variety must be noted and then in going over the field several of the best individual plants are chosen, taking into special consideration the foliage, plant habit, and the color, shape and size of the fruit. While keeping the fruit from each plant separate the tomatoes are sliced open so that the interior structure and color can be noted. After carefully considering all points, the fruit from the best plants is crushed to have the seed extracted by the

View of a Portion of Our Trials on Wilt Infested Soil.
Comparatively Few Varieties Are Strongly Wilt Resistant.

fermentation method. This selection must be and is continued year after year in order that the high standard set for a variety may be maintained and improved.

In order to check improved selections against the parent and competitive stocks many trials are conducted each year and the results carefully tabulated. These records together with field performance are the guides for further selections. For proper tests of the wilt-resistant varieties many trials also are made on wilt-infested soil, giving us a complete check on the characteristics of the various varieties.

For production, our seed is sown in beds soon enough in the spring so that without forcing, the plants will be ready to transplant directly into the fields in May. After planting, rogueing is the next job requiring much care and here again special knowledge of variety characteristics is needed and thoroughness in going through the fields must be exercised. This work begins as early as possible so that any off-type vines may be removed to avoid chance of cross-pollination and is continued until after all plants have developed ripe fruit assuring a check on all points.

Harvest soon comes on and as our tomatoes are grown only for seed we can give our full attention to our seed operations. The tomatoes are picked when full ripe, coarsely crushed to avoid seed injury and are run into barrels for a period of fermentation. At the end of this period, the pulp is poured into long flumes of moving water arranged with riffles at intervals behind which the good seed settles, allowing the pulp and light seed to float off. Thorough rinsing is accomplished by agitation of the seed in the flume, thereby releasing practically all waste material. Upon

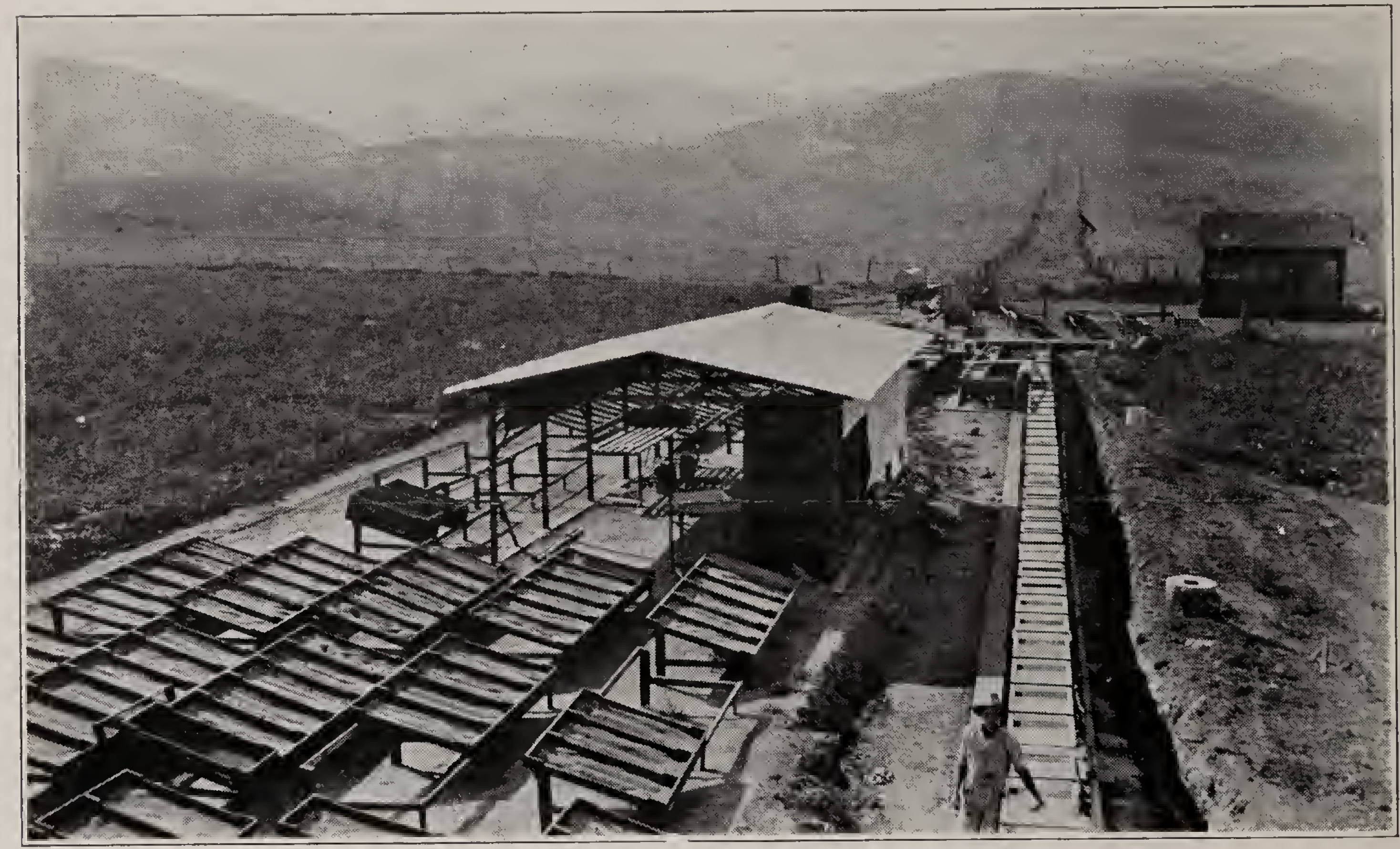
Crushing Tomatoes, with Coarse Pulp Running Into Barrel to Be Fermented. Part of Flume in Immediate Foreground.

removal from the flume, the excess water is gently pressed from the seed, after which it is spread on especially constructed screens to cure naturally by the sun heat. We have known seed properly saved in this manner to retain a good germination for more than ten years.

In connection with harvest it is of interest to state that after much work in disease control of tomatoes, the Utah Experiment Station has issued a bulletin by Dr. H. L. Blood setting forth their findings to the effect that fermentation of the whole pulp of tomatoes is a definite control for one of the most serious of seed-borne diseases, Bacterial Canker (Aplanobacter Michiganense). Although until recent years unaware of its value as a disease control, we have always used this method of seed extraction, believing that it has many advantages in securing seed of nice appearance and strong viability, at the same time reducing the chances for varietal mixture.

Our main seed storage warehouse is constructed of hollow tile so as to remain dry and at the same time maintain a cool, even temperature. This is a very important feature in the proper warehousing of seeds as has been proved many times by extensive experiments.

Our Main Seed Warehouse of Hollow Tile Affords Excellent Facilities for Seed Storage.



Washing Seed in the Flume While a Previous "Run" Is Drying on the Screens.

Although our method of harvest removes practically all waste, yet when our seed is well cured it is carefully run through a mill especially designed for cleaning this type of seed, thereby giving us properly conditioned, well filled seed of high germination. In packing, as in all other operations up to this point, only carefully trained workmen under our personal supervision are used to guard against mixture, and particular care is given to see that the seed is well put up so as to arrive at its destination in the best possible condition.

We are working with the very definite purpose of supplying seed which the planter can sow, feeling assured that with proper cultural practices he can expect high yields of first quality fruit. Such results naturally urge the planter to secure seed of the same stock year after year.

Field View of One of Our Select Stocks—Practically All Grade "A" Tomatoes.